

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

Paper No. 12

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WOODY WURSTER

Appeal No. 97-1400
Application 08/394,409¹

ON BRIEF

Before McCANDLISH, Senior Administrative Patent Judge, and ABRAMS
and FRANKFORT, Administrative Patent Judges.

FRANKFORT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final
rejection of claims 1, 3, 5 and 10 through 14. Claims 2, 4 and 6

¹ Application for patent filed February 24, 1995.

Appeal No. 97-1400
Application 08/394,409

through 9 have been canceled. In the brief (page 2), appellant acknowledges that claims 1, 3, 5 and 10 through 14 are "pending" in the application, but then indicates that "[c]laims 1, 3, 5 and 10-13" are on appeal. No mention is made in the brief of claim 14. On page 1 of the examiner's answer (Paper No. 9), the examiner has indicated that "[i]t is noted that claim 14 is not stated as on appeal and is therefore not considered on appeal." Subsequent to this indication by the examiner, the appellant filed a reply brief on July 30, 1996 (Paper No. 10). Again there was no comment made by appellant with regard to claim 14. Accordingly, the appeal as to claim 14 is dismissed. This leaves only claims 1, 3, 5 and 10 through 13 for our consideration on appeal.

Appellant's invention relates to an electrical contact having a compliant section for press-fit into a circuit board hole. See, for example, Figures 1 and 2 of the application drawings. The compliant section is of the "eye-of-the-needle" type, which, as can be seen in Figures 2 through 5 of the application drawings, is one which has an elongated vertical slot (e.g., 44) that divides the section into a pair of beams (e.g., 46, 48) that merge together into a lower portion (30). Figure 1

of the drawings is labelled "Prior Art" and is described on page 4 of the specification as including a lower section (Z) which projects below the lower face of the circuit board and has sharp corners, as at (SS), which can act as antennas for high frequency signals on the order of 100 MHZ or higher. It is said that this construction can result in undesirable "crosstalk" between adjacent contacts, or allow the sharp edges to radiate signals to adjacent circuitry and pick up stray signals. To overcome these problems with the prior art electrical contacts, appellant has provided an electrical contact with the particular configuration seen in Figures 2 through 6 of the application drawings. Of special importance to appellant is the rounded configuration of the lower portion (30) of the contact as seen in front elevation view Figure 5 and side elevation view Figure 6 of the drawings and the relatively small dimension (N) between the bottom of the slot (44) and the extreme lower end (32) of the compliant section. As noted on page 10 of the specification,

the invention provides an electrical contact with a large retention force, which minimizes the emission and reception of high frequency signals when installed in circuit board holes, especially those of the most common sizes. Emission and reception resulting in crosstalk, is minimized by rounding the lower surface of the contact, and by constructing

Appeal No. 97-1400
Application 08/394,409

the compliant section so the portion below
the bottom of the slot is short so it does
not project below the bottom of most circuit

boards and projects minimally below the
bottom of thin boards. This is accomplished
while maintaining a high retention force, by
making the beams of a length that is at least
half the board thickness and by providing the
outer sides of the beam with convex surfaces
of moderately large radius of curvature.

Claims 1, 10 and 13 are representative of subject
matter on appeal and a copy of those claims may be found in the
Appendix to appellant's brief.

The prior art references of record relied upon by the
examiner in rejecting the appealed claims are:

Rozmus	5,078,612	Jan. 7, 1992
Zell	5,090,912	Feb. 25, 1992
Prochaska et al. (Prochaska)	5,106,328	Apr. 21, 1992

Claims 1 and 3 stand rejected under 35 U.S.C. § 103 as
being unpatentable over Prochaska in view of Rozmus.

Appeal No. 97-1400
Application 08/394,409

Claims 5 and 10 through 13 stand rejected under 35 U.S.C. § 103 as being unpatentable over Zell in view of Prochaska and Rozmus.

Rather than reiterate the examiner's full explanation of the above-noted rejections and the conflicting viewpoints advanced by the examiner and appellant regarding those rejections, we make reference to the final rejection (Paper No. 6, mailed December 6, 1995) and to the examiner's answer (Paper No. 9, mailed July 8, 1996) for the examiner's reasoning in support of the rejections, and to appellant's brief (Paper No. 8, filed May 16, 1996) and reply brief (Paper No. 10, filed July 30, 1996) for appellant's arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by appellant and the examiner. As a consequence of this review, we have made the determination that the examiner's rejections under 35 U.S.C. § 103 will not be sustained. Our reasons follow.

After careful review of the basic combination of Prochaska and Rozmus, we must agree with appellant (brief, pages 4-7) that there is no teaching, suggestion or incentive in the applied references which would have led one of ordinary skill in the art to their combination as posited by the examiner so as to arrive at the particular form of electrical contact as claimed in independent claim 1 and dependent claim 3 on appeal. Moreover, while the examiner is of the view that Rozmus, in Figure 2, discloses a compliant pin section with an extreme upper end having a radius of curvature "which appears to be at least 25% of thickness [sic] of the compliant section as seen in side elevation view" (final rejection, page 3), we share appellant's view that the rounded ends of the elongated connector tail (1) and the wire wrap tail (2) seen in Figure 2 of Rozmus are far removed from the compliant section (3) of the contact pin therein and form no part thereof, and also that the radius of curvature of the extreme ends of these tails would appear to be much smaller than the 25% of the contact thickness that the examiner sees therein.

As for the examiner's further assertion that Prochaska, Figure 4, when viewed upside down, shows the extreme lower end of the contact therein having a distance (N) below the bottom of the slot (20) that "appears to be no more than one-quarter of [the] height of the slot" (final rejection, page 3), we find Figure 4 of Prochaska to be ambiguous due to the excessive inking of the drawing, particularly in the area of the ends of the slot (20), so that any such determination or measurement is at best speculative. We note, however, that our own measurement of the distance (N) relative to the length of the slot in Prochaska Figure 4 is in accord with appellant's determination (brief, pages 6-7 and 9), and shows that the distance (N) between the bottom of the slot (20) and the extreme end of the contact is most likely greater than 25% of the slot length.

Considering (1) the distinct differences between the configurations of the contacts of Prochaska and Rozmus, and (2) the arguments made by appellant in both the brief and the reply brief, it is our opinion that the examiner's combination of Prochaska and Rozmus is based on impermissible hindsight derived from appellant's own teachings and not from the prior art

Appeal No. 97-1400
Application 08/394,409

references themselves as the teachings thereof would have been understood by one of ordinary skill in the art at the time of appellant's invention.

Having also reviewed the patent to Zell applied by the examiner against claims 5 and 10 through 13 on appeal, we find nothing therein which would overcome or provide for the deficiencies noted above in the teachings or suggestions of Prochaska and Rozmus.

Lacking any reasonable teachings in the prior art itself which would appear to have fairly suggested the claimed subject matter as a whole to a person of ordinary skill in the art, or any viable line of reasoning as to why such artisan would have otherwise found the claimed subject matter to have been obvious in light of the teachings of the applied references, we must refuse to sustain the examiner's rejections of claims 1, 3, 5 and 10 through 13 under 35 U.S.C. § 103.

In light of the foregoing, the decision of the examiner is reversed.

Appeal No. 97-1400
Application 08/394,409

REVERSED

HARRISON E. McCANDLISH)	
Senior Administrative Patent Judge)	
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)	BOARD OF PATENT
NEAL E. ABRAMS)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
)	
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CHARLES E. FRANKFORT)	
Administrative Patent Judge)	

Appeal No. 97-1400
Application 08/394,409

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